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EXAMINER

VERBITSKY, GAIL KAPLAN

ART UNIT

PAPER NUMBER

2859

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/033,875

Applicant(s)

Dorwarth et al.

Examiner

Gail Verbitsky

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 9-10, 15-22 is/are rejected.
- 7) ☒ Claim(s) 4-8, 11-14 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some\* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 97 (1pg) 6) ☐ Other:

Art Unit: 2859

## DETAILED ACTION

### *Priority*

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119 (a)-(d).

### *Claim Objections*

2. Claims 4, 6, 13-14, 16, 20 are objected to because of the following informalities:

Claim 1: comma should be added after “provided” in line 6, “vessel” in line 8, “hotplate” in line 10,

Claims 4, 6: --the--“ should be inserted before “at least one” in line 1 for a proper antecedent basis,

Claims 13-14: “cooking zone” in line 1 lacks antecedent basis,

Claim 13: A) --the-- should be inserted before “at least one” in line 2 for proper antecedent basis,

B) second occurrence of “.” at the end of the claim should be deleted,

Claim 16: Perhaps applicant should delete the term “colour” in line 4 in order to clearly describe the invention and avoid confusion. Is this a proper interpretation of the invention?

Claim 20: comma should be added after “surface” in line 8. Appropriate correction is required.

Art Unit: 2859

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In this case:

The term "slightly" in claim 9 is a relative term which renders the claim indefinite. The term "slightly" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 9, 17-22 are rejected under 35 U.S.C. 102(b) as being anticipated by

Harnden, Jr. (U.S. 3742179) [hereinafter Harnden].

Harnden discloses in Fig. 2 a device (an electrical heating appliance) comprising a cooktop surface having at least one heating/ cooking zone, a flat temperature sensing mat/ matrix

Art Unit: 2859

(at least measuring element having encapsulated thermistors) 60 placed on the top and slightly projects over the cooktop surface. The device is provided with a measuring circuit (sensor determining the temperature of the temperature sensing mat) 30 and 45 located beneath the cooktop surface. The mat projects over the cooktop. The heating zone is heated by induction heating with an induction coil 36. Because the induction heating is used, the cooking vessel is not heated higher than 550°F (col. 8, lines 7-9) or about 250- 300°C. The measuring element which includes thermistors 63, measures the temperature of the cooking vessel in response to an infrared radiation (heat) emitted from the bottom surface of the vessel, and depends on the temperature of the cooking surface.

With respect to claims 20-22: The method steps will be met during the normal operation of the device stated above.

7. Claims 1-2, 9, 18, 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Fischer et al. (U.S. 4431908) [hereinafter Fischer].

Fischer discloses in Figs. 1, 7 a heating appliance device comprising a cooktop surface with heating zones (surface areas) 12c and a flat temperature measuring element 40 on/slightly above it for a contact with a cooking vessel. Fisher also discloses a temperature regulator/ control 41 which located below the cooktop and determining the temperature of the measuring element and responding to it.

Art Unit: 2859

With respect to claims 20-22; The method steps will be met during the normal operation of the device stated above.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

9. Claims 1-3, 16, 18, 20-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Stein (U.S. 6375350B1).

Stein discloses in Fig. 1A a device comprising a hotplate 9, a flat measuring element (transparent window) 2 provided in a center of a cooking zone of the top surface of the hotplate underside of a cooking vessel, the measuring element obtains (sensing) and transmits temperature data of the bottom side of the vessel to an infrared sensor for determining the temperature provided by the measuring element. As shown in the Fig. 1A, the sensor is located below the hotplate. The window is a part of the top surface of the hotplate and it is made of a material of a good radiation transparency.

Art Unit: 2859

With respect to claims 20-22: The method steps will be met during the normal operation of the device stated above.

*Claim Rejections - 35 USC § 103*

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harnden.

Harnden discloses the device as stated above in paragraph 6.

Harnden does not disclose the particular height that the measuring element projects over the top surface, as stated in claim 10.

With respect to the particular height of the measuring element, i.e., 0.05 and 0.15 mm above a top surface of cooktop, the particular height (size), absent any criticality, is only considered to be the “optimum” size of the device disclosed by Harnden that a person having ordinary skill in the art at the time the invention was made would have found obvious to provide using routine experimentation based, among other things, on the intended use of the device, the particular temperature range and aesthetic requirements. *See In re Boesch*, 205 USPQ 215 (CCPA 1980). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the measuring element of the device disclosed by

Art Unit: 2859

Harnden, so as to make it projecting 0.05 to 0.15 mm over the top surface of the hotplate, i.e., high enough so as to make the cooking zone distinct from other zones, and low enough to prevent a cooking pot from falling over, if the pot is not properly positioned on the cooking zone.

12. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harnden and Palti (U.S. 6220750B1)

Harnden discloses the device as stated above in paragraph 6.

Harnden does not explicitly disclose that the measuring element is made of a good conducting material with a low heat capacity.

Palti discloses an encapsulated temperature sensing device 10 constructed of a material with a high heat conductivity and a low heat capacity.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the encapsulated thermistor in the temperature sensing element (mat) disclosed by Harnden, with an encapsulated temperature sensing device, as taught by Palti, so as to make the temperature sensing mate comprising a material with a high thermal conductivity and a low heat capacity, in order to provide quick heat conduction and save power along with reducing a waiting time.

*Allowable Subject Matter*



Art Unit: 2859

13. Claims 4-8 and 11-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Said claims would be allowable because the prior art of record does not teach or suggest that the measuring element to measure the temperature of the cooking utensil is formed by a self-adhesive coating on the hotplate, as stated in claims 4-5, that the measuring element is formed by a separate and thin material portion being fixed to the top of the hot plate, as stated in claims 6-9, that there are several measuring elements in the vicinity of a heating zone, as stated in claims 11-12, and that the measuring element is being positioned eccentrically to the center of the heating zone or off it, as stated in claims 13-14, in combination with the remaining limitations of claims 4-8 and 11-12.

### *Conclusion*

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices and methods.

15. Any inquiry concerning this communication should be directed to the Examiner Verbitsky who can be reached at (703) 306-5473 Monday through Friday, 7:30 to 4:00 ET.

Application/Control Number: 10/033,875

Page 9

Art Unit: 2859

Any inquiry of general nature should be directed to the group Receptionist whose telephone number is (703) 308-0956.

GKV

November 11, 2002

Gail Verbitsky



*Patent Examiner, TC 2800*